

Wind Fisher is delighted to present our Magnus Airborne Generator energy system. Our containerized wind power solutions are easy to install and operate as distributed renewable energy resources. We believe the simplicity of our wind power architecture and the automated operations will give you peace of mind as you reap the benefits of on-site, clean energy production.

The key advantages of our technology are:

- High capacity factors reaching >60% at sites with characteristic wind speeds of 7 m/s;
- Grid stabilization capabilities with mechanical flywheels linked to electrical generators;
- Reduced CO2e emissions per kWh due to greatly reduced raw material usage;
- Tolerance to gust prone and turbulent wind sites;
- Minimal site preparation and easy return to natural state at decommissioning.

Primary use cases for our first commercial 100 kW systems, producing over 525 MWh per year, are:

- Diesel & photovoltaic hybridization;
- Micro-grid wind power generation;
- Behind-the-meter electricity generation.

Our MAG100 energy system is priced at 300 k€ and includes a 3 year warranty with 1 year of maintenance included. The operator should plan for 9 k€ of standard maintenance per year after the first year. The expected lifetime of the system is 20 years for the major components. The textile envelope, synthetic fiber tethers and power electronics require more frequent replacement per industry standard lifetimes.

The system is delivered in a single 12 m (40 foot) ISO standard container, and our team will install and commission the system in two working days. This installation time is based on the expectation that all site preparation for the electrical connection has been completed in advance. If you have a need for power ratings other than 100 kW, please contact us for discussion of your specific use case.

Installation of the 100 kW system requires a 10 x 30 m rectangular installation zone (aligned perpendicular to the dominant wind direction) and a 50 m radius restricted zone. No obstacles may be located in the restricted zone or in a conical flight volume rising 15° from horizontal from the edge of the restricted zone. In the event of directional wind patterns, these circular zones may be reduced to pie shaped zones subject to further study.

The operator is expected to provide a technician 1/2 day per month for a site visit and basic mechanical and electrical maintenance checks of the system as well as to assume exceptional duties such as storm safing the wing to the ground station in the event of an adverse weather forecast.

We look forward to presenting our offer in more detail and studying your specific site constraints. And we would be grateful if you could provide us with a written expression of interest.

Kind regards,

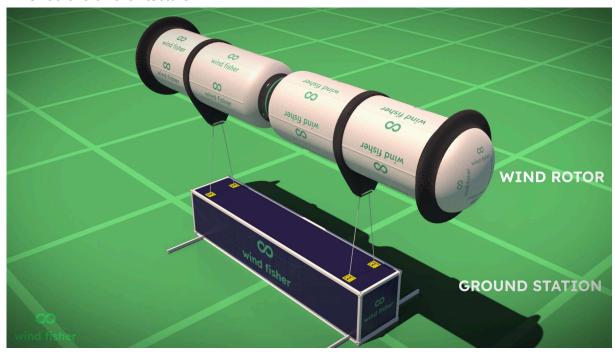
Garrett Smith President

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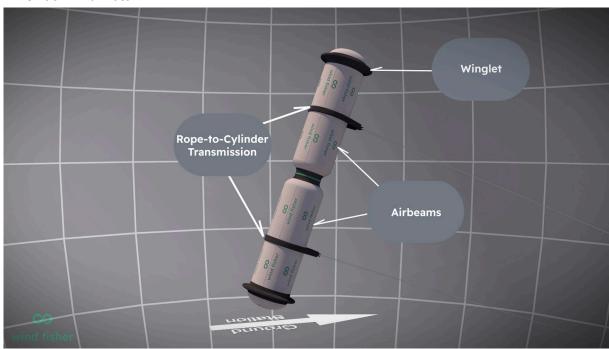
RCS: Grenoble



MAG100 overall architecture



MAG100 Wind Rotor

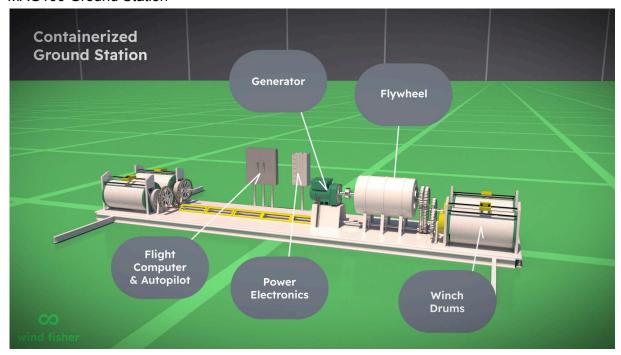


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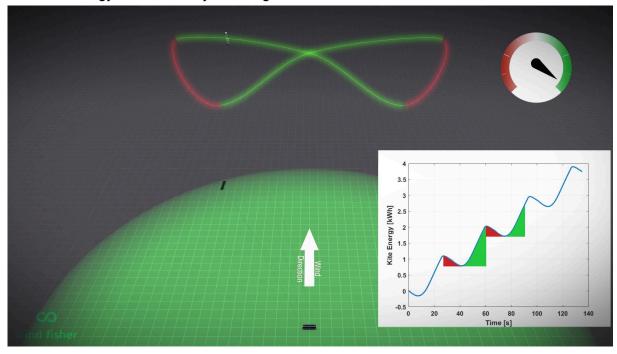
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MAG100 Ground Station



MAG100 Energy Production Cycle & Flight Path



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MAG100 Technical data:	
Average cycle power	100kW
Power smoothing	Mechanical flywheel linked to electrical generator in each unit, 30-60 seconds energy storage.
Kite dimensions	24m span, 3.8m diameter, 270 cubic meters volume
Operating Wind Range	3-30m/s
Tether radius	300-1000m (site dependent)
Average power per wing projected area	1.2 W/m2
Tether diameter	10mm
Wing Mass	220kg
Ground station	12m (40 foot) ISO standard container
Electrical output	3 phase, 400V
Performance data:	
Capacity factor	>60% @ 7 m/s wind speed
Flight speed	15m/s
Launch & Landing	Fully automated
Storm safing	Manual
Options:	
Mechanical Power Take-Off	25 kW
Payload package	20 kg - buoyant lift 100 kg - aerodynamic lift
Battery Storage Module Option	In container: 200kWh, 50 kW peak

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